

REMARKS

Claims 5, 8, 13, 16, 20, 23, 35, 38, 43, 46, 50, 53, 65, 68, 73, 76, 80 and 83 have been canceled. Claims 1, 3, 6, 11, 14, 19, 22, 29-31, 33, 34, 36, 37, 40-42, 44, 45, 47-49, 51, 52, 54-56, 59-61, 63, 66, 71, 74, 79, 82, 89 and 90 have been amended. Claims 1-4, 6, 7, 9-12, 14, 15, 17-19, 21, 22, 24-34, 36, 37, 39-42, 44, 45, 47-49, 51, 52, 54-64, 66, 67, 69-72, 74, 75, 77-79, 81, 82, and 84-90 remain pending in the application. Reconsideration is respectfully requested in light of the following remarks.

Section 102(b) Rejection:

The Examiner rejected claims 1-29, 31-59 and 61-89 under 35 U.S.C. § 102(b) as being anticipated by Shah et al. (U.S. Patent 7,039,922) (hereinafter, “Shah”). While Applicant continues to traverse this rejection, to expedite issuance of a patent, Applicant has amended the independent claims to further clarify their distinctive features. Applicant submits that the pending claims as amended are not anticipated by Shah for at least the following reasons.

Shah fails to teach or suggest all of the limitations of amended claim 1. Specifically, Shah fails to teach or suggest a method comprising: a host system receiving from a fabric coupled to the host system an event indicating a fabric state change for one or more host adapter ports of said host system; and the host system dynamically changing the host system’s fabric device configuration in response to said receiving an event; wherein said host system dynamically changing comprises the host system bringing online or taking offline one or more fabric-attached mass storage devices for the one or more host adapter ports for the host system.

As argued in response to previous Office Actions, Shah is directed to a fabric-based cluster interface for interfacing hosts with fabric-attached input/output (I/O) controllers (Abstract). As illustrated in Fig. 2 and described at col. 3, lines 29-67, Shah discloses a typical embodiment that includes hosts 210 and 212, a fabric 202, and I/O

units 1 and 2 coupled to fabric 202. In turn, I/O units 1 and 2 couple to I/O controllers 1-3, which couple to a number of fabric or I/O devices 222, 224, 232, 234. Shah discloses that the fabric or I/O devices may encompass “storage devices” such as hard drives or tape drives.

As shown in Fig. 2 and alternative embodiments shown in Figs. 3-4, Shah clearly distinguishes between I/O units, I/O controllers and the fabric devices that are managed by the I/O controllers. Further, the entire discussion of fabric management in Shah takes place at the level of I/O units and controllers, not fabric-attached mass storage devices. In Fig. 7 and at col. 8, line 24 – col. 10, line 62, Shah discloses a central network manager 710 including fabric services 712 and I/O controller manager 714. Shah describes fabric services 712 as being configured to detect the attachment of I/O units 1 and 2 to fabric 202 and to assign a network address (e.g., a Media Access Control (MAC) address) to the attached I/O units (col. 8, lines 48-53). Subsequently to a MAC address being assigned, Shah describes I/O controller manager 714 as being configured to identify the I/O controllers connected to the I/O unit, such as by querying the individual I/O units (col. 8, lines 64-67). After identifying the attached I/O controllers, Shah discloses that I/O controller manager 714 is configured to determine which hosts are allowed to access each of the I/O controllers and to send messages to the hosts indicating the I/O controllers they may access (col. 9, lines 9-29).

Nowhere within the disclosure does Shah specify that any types of fabric management tasks, such as bringing online or taking offline, are performed by a host system at the level of the fabric-attached mass storage devices themselves. Rather, the level of management granularity described by Shah is restricted to that of I/O controllers, which as shown in Fig. 2 may control more than one fabric device. Assigning MAC addresses to I/O units and assigning I/O controllers of those I/O units to hosts, as described by Shah, is in no way suggestive of a host system dynamically changing its fabric device configuration in response to receiving a fabric state change event, where changing the fabric device configuration comprises the host system bringing online or taking offline one or more fabric-attached mass storage devices for the one or more host

adapter ports for the host system, as required by Applicant's claim 1. Aside from mentioning that fabric devices may include storage devices, Shah does not mention any details of device-level configuration or operation. Further, the device-level configuration required by claim 1 cannot be fairly implied from the controller-level configuration disclosed by Shah, since these two types of configuration pertain to completely different levels within the fabric hierarchy.

Shah further fails to teach or suggest that bringing online and taking offline the fabric-attached mass storage devices respectively comprise creating or disabling an operating system node corresponding to each of the one or more fabric-attached mass storage devices being brought online or taken offline; where each given operating system node provides a communication interface to a given corresponding fabric-attached mass storage device, and wherein an application running on said host system is configured to communicate with said given corresponding fabric-attached mass storage device through said given operating system node, as required by amended claim 1.

As noted above, Shah does not disclose any aspect of a host managing individual fabric-attached mass storage devices, as opposed to interfaces or controllers of such devices. Shah further fails to disclose any aspect of creating or disabling operating system nodes corresponding to the fabric-attached mass storage devices, where the operating system nodes provide communication paths to the devices through which an application running on the host system may communicate with the fabric-attached mass storage devices. The discussion Shah provides at cols. 7-12 describes detecting and assigning network addresses to I/O units and I/O controllers. However, this is not in any way suggestive of interfacing applications to individual fabric-attached mass storage devices via operating system nodes. Applicant further notes that the features of claim 1 absent from Shah are also absent from the Shah '380 reference mentioned below.

Similar arguments apply to amended independent claims 31 and 61, which recite limitations similar to those of claim 1. Thus, for at least the foregoing reasons, Applicant submits that the rejection of the independent claims would be unsupported by Shah.

Applicant notes that the rejections of numerous ones of the dependent claims are also unsupported by the cited art. However, as the rejections of the independent claims have been shown to be unsupported, further discussion of the dependent claims is unnecessary at this time.

Section 103(a) Rejection:

The Examiner rejected claims 30, 60 and 90 under 35 U.S.C. § 103(a) as being unpatentable over Shah '922 as applied to claims 1-29 above, and further in view of Shah et al. (U.S. Patent 6,887,380) (hereinafter "Shah '380"). Applicants traverse this rejection for at least the reasons given above for independent claims 1, 31 and 61.

CONCLUSION

Applicants submit the application is in condition for allowance, and notice to that effect is requested.

If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5181-83600/AMP.

Respectfully submitted,

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